

Remarks

An Office Action was issued on December 12, 2003 objecting to the specification and rejecting claims 1, 2, 4-11, 17 and 18. The Office Action acknowledged the claim amendments and cancellation of certain claims in the response filed on September 26, 2003. The Office Action also withdrew the rejections of Paper 8 as a result of the response filed on September 26, 2003. The Office Action rendered Applicants' arguments made on September 26, 2003 moot in view of the new rejections put forth in this Office Action.

The Office Action of December 12, 2003 objected to the specification under 35 U.S.C. § 132 as introducing new matter. The Office Action claims that new material not supported by the original disclosure includes the pH range "between 10.3 and 11.0" of claim 1 and the surfactant in claim 18.

The Office Action rejected claims 1 and 18 under 35 U.S.C. § 112, first paragraph as not complying with the written description requirement. The Office Action stated that the pH range of "between 10.3 and 11.0" in claim 1 and the surfactant in claim 18 are not supported in the specification.

The Office Action rejected claims 1, 4, 5 and 7-10 under 35 U.S.C. § 112, second paragraph as indefinite for failing to particularly point out and distinctly claim the subject matter. Specifically, the Office Action claims that claim 1 is indefinite because it is unclear whether it is directed toward the emulsion, the finished article or the method of making the article from the emulsion. The Office Action argues that claims 4, 5 and 7-10 are indefinite because they state "x parts per 100 parts polyisoprene" without indicating whether these are parts by weight or other measurement.

The Office Action then rejected all pending claims as obvious. First, the Office Action rejected claims 1, 2, 4, 5, 9-11, 17 and 18 under 35 U.S.C. § 103 as obvious over Stevenson et al. (U.S. Pat. No. 5,254,635) ("the Stevenson '635 patent") in view of Hirai et al. and Grollier et al. The Office Action asserts that the Stevenson '635 patent discloses a liquid latex, a thiuram compound, and a dihydrocarbyl xanthogen polysulfide. The Office Action also states that because the Stevenson '635 patent discloses xanthogen, a curing agent, it discloses an article made from a liquid latex emulsion including all these elements. The Office Action further states that the method limitation has not been given "patentable weight" because the method of making an article is not material to patentability of the article. The Office Action then admits that the Stevenson '635 patent fails to teach a stable liquid polyisoprene emulsion with a pH of between 10.3 and 11.0 with ethoxylated cetyl/stearyl alcohol. The Office Action asserts that the patents to Hirai et al. and Grollier et al. disclose these elements; specifically, it states that Hirai et al. disclose a stable liquid polyisoprene

latex with a pH between 8 and 13.5, and that Grollier et al. disclose a composition to which emulsifying agents may be added. The Office Action also states that a patent indicated only as "Watkins et al." teaches that ethoxylated cetyl/stearyl alcohol is an emulsifying agent.

The Office Action further states that claims 2, 4, and 5 are obvious in view of the Stevenson '635 patent because it teaches the use of tetrabenzyl thiuram disulfide in an amount overlapping the amounts of thiuram compound stated in claims 2, 4 and 5. The Office Action states that claims 9 and 10 are obvious in light of the Stevenson '635 patent because it teaches an overlapping range of the amount of xanthogen to be used. The Office Action also states that claim 11 is obvious because the Stevenson '635 patent teaches that the article can be made into contraceptives.

The Office Action claims that claim 17 is obvious in light of the Stevenson '635 patent, Hirai et al. and Grollier et al. because Hirai et al. teach the requisite pH range. It further claims that claim 18 is obvious because Hirai et al. disclose that the emulsion includes a surfactant as part of the emulsifying agent.

The Office Action also rejected claims 6-8 under 35 U.S.C. § 103 over Stevenson '635 patent in view of Hirai et al., Grollier et al. and Stevenson (U.S. Pat. No. 4,695,609) ("the Stevenson '609 patent"). The Office Action states that while the Stevenson '635 patent, Hirai et al. and Grollier et al. fail to teach the use of zinc dithiocarbamate, the Stevenson '609 patent teaches this element. The Office Action states that zinc dithiocarbamate is a widely known accelerator and it would have been obvious to include it in the composition using all the other elements as included in the Stevenson '635 patent, Hirai et al. and Grollier et al. Finally, the Office Action states that the amount of zinc dithiocarbamate disclosed in the Stevenson '609 patent overlaps the amount disclosed in this application.

I. The Office Action Does Not Sufficiently Identify "Watkins et al."

The Office Action fails to include either the patent number or the date of issuance for this mysterious "Watkins" patent. As required under 37 CFR 1.104(d), if "domestic patents are cited by the examiner, their numbers and dates, and the names of the patentees will be stated." This was not done in this Office Action. Further, MPEP § 707.05(a) states that copies of cited references are "automatically furnished without charge to applicant together with the Office action in which they are cited." The Office Action issued on December 12, 2003 did not include a copy of a patent to "Watkins et al." or any other references. As a result of these failures, Applicants cannot review the patent to "Watkins et al." to fully understand the rejection made in this Office Action.

II. The Rejection Under § 132 Is Improper

The Office Action incorrectly objects to the specification under 35 U.S.C. § 132. Objections based on new matter are only properly made to the claims, not the specification. *See* 35 U.S.C. § 132; MPEP § 706.03(o). As the language of § 132 clearly states, “[w]henever, on examination, any *claim* for a patent is rejected, or any objection or requirement made....” (emphasis added) The MPEP states that an objection to the specification may be made based on § 132, but it states this only in reference to amendments to the specification. MPEP § 706.03(o). In this case, the specification has not been amended and this objection under § 132 to the specification is improper.

III. The Rejections Under § 112, First Paragraph Are Improper

Additionally, the rejection of claims 1 and 18 under 35 U.S.C. § 112, first paragraph is also improper. Claims 1 and 18 do not contain new matter.

The pH range in claim 1 and the surfactant of claim 18 are included in the specification, as they have always been. The pH range of claim 1 is included with more specificity in Table 1, where examples are listed that include a pH range of 10.5-10.8. An increase or decrease of 0.2 on either side of this range is not new matter; this slight broadening of the range serves only to encompass the slight deviations from the examples that may be used with the invention, as one of skill in this art would understand. In fact, the MPEP states at § 2163.05, part III, that “[w]ith respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported in the original disclosure.” *See* MPEP § 2163.05, p. 2100-175. The MPEP there cites to the case *In re Wertheim*, in which the Court of Customs and Patent Appeals held that a range of 35-60% solids content in the claims was reasonable based on examples of 36% and 50% solids content because “persons skilled in the art would consider processes employing a 35-60% solids content range to be part of [the] invention.” *In re Wertheim*, 541 F.2d 257, 265 (CCPA 1976). Similarly, one of skill in the art would understand that ± 0.2 in pH to the range given in the examples of this application would be reasonable.

Further, the surfactant of claim 18 is included in the specification; surfactants are specifically mentioned in paragraph 4 of the specification. At paragraph 4, the specification states that “[t]he coagulated wet gel would typically be leached in water to remove residual surfactant before being dried at a relatively high temperature to complete the crosslinking of the rubber film.” The surfactant included in claim 18 is not new matter and is included in the specification, making the rejection under 35 U.S.C. § 112, first paragraph improper.

IV. Claim 1 Is Not Indefinite Under § 112, Second Paragraph

The Office Action's rejection of claim 1 under 35 U.S.C. § 112, second paragraph is also incorrect. The rejection of claim 1 as indefinite because of the structure of the claim is faulty and the Examiner's statement that he cannot determine whether the Applicants are claiming a product or a process is difficult to understand. A product-by-process claim format is well-known as an acceptable claim format. It is quite clear from the construction of the claim that it refers to a product made by a process. Nowhere in the Patent Act does it state which claim types or forms are acceptable, and time and again product-by-process claims have been found acceptable. MPEP section 2173.05(p) further supports this conclusion by stating that a "product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper." MPEP § 2173.05(p). The MPEP also cites to cases confirming that product-by-process claims are a valid means of claiming an invention. *See, e.g., In re Luck*, 476 F.2d 650 (CCPA 1973); *In re Pilkington*, 411 F.2d 1345 (CCPA 1969); *In re Steppan*, 394 F.2d 1013 (CCPA 1967).

The language used in claim 1, "A polyisoprene article made by curing a composition comprising, a stable liquid polyisoprene latex emulsion having a pH of between 10.3 and 11.0, the stable liquid polyisoprene latex emulsion comprising; a liquid latex; sulfur; a thiuram compound; a xanthogen compound; and ethoxylated cetyl/stearyl alcohol" clearly uses product-by-process language. Claim 1 claims a polyisoprene article in terms of how it is made – by curing a composition comprising certain elements. Claim 1 certainly falls within the scope of acceptable claim forms outlined by the MPEP, making the rejection of claim under 35 U.S.C. § 112 second paragraph improper.

Nonetheless, Applicants have chosen to amend claim 1 independent of this rejection and maintain that in either form, old or new, claim 1 is in good and proper form. New claim 19 has also been added.

With regard to the rejection of claims 4, 5 and 7-10 under the second paragraph of § 112, these claims have been amended to indicate that it is x parts per parts polyisoprene by weight. Claim 1 has also been amended to correct the spelling of the word "polyisoprene."

V. The Claims Are Not Obvious In View of the References Cited

Assuming the "Watkins et al." reference discloses ethoxylated cetyl/stearyl alcohol as an emulsifier for stable polyisoprene latex emulsions comprising a liquid latex, sulfur, a thiuram compound, and a xanthogen compound, Applicants traverse the rejection of claims under 35 U.S.C. § 103. Applicants base this response on the information and references available at the time of this response, but reserve the right to supplement this response should

the “Watkins et al.” reference be identified to allow for its review. The present response is based on the Examiner’s recitation of the “Watkins et al.” reference.

The issue of the Watkins et al. reference aside, the Office Action’s rejections under 35 U.S.C. § 103 are incorrect. These references, combined together, would not comprise all the elements of the present invention. These references do not teach, separately or together, a stable polyisoprene latex emulsion including sulfur, a thiuram, a xanthogen compound and ethoxylated cetyl/stearyl alcohol at the specific pH range of between 10.3 and 11.0. In fact, none of these references teach or even imply a stable emulsion. Furthermore, the references relied on do not teach or suggest a “thin film polyisoprene article” made by curing the stable polyisoprene latex emulsion of claim 1.

The present specification specifically teaches a thin film polyisoprene article made by curing the claimed stable emulsion. [e.g. ¶¶ 0031-0032]. Curing, as used in the specification, is by the application of heat without the use of a coagulant. [¶¶ 0018-0029]. The present specification also teaches a stable latex emulsion. [¶ 0009]. The specification teaches that the stable emulsion of the present invention used to make thin film polyisoprene articles is pH adjusted. [Table 1]. Each of these attributes are claimed in the pending claims.

As a whole, the art relied on by the Office Action is silent on the making of a “stable liquid polyisoprene emulsion.” Furthermore, the references relied on do not teach or suggest the making of a thin film polyisoprene article.

While the Hirai et al. reference teaches a broad pH range, this same reference fails to recognize the criticality of pH in making a stable liquid polyisoprene emulsion. None of the references relied on even suggest that pH is critical to the making of an emulsion having the composition claimed in the instant invention. Stevenson, the primary reference relied on in the Office Action, is silent on the pH range necessary to make the so-called emulsion of Stevenson. Combining the other references cited in the Office Action does not fix this deficiency. None of the references relied on in the Office Action suggest that pH is important, let alone critical, to making a stable liquid polyisoprene emulsion.

Further, these references are not enabling for the specific pH range indicated in this application. A broad pH range of 8.0-13.5 does not recognize the criticality of the pH range that renders this composition stable. As noted by the inclusion of the word “stable” in the claims, it is important that the latex emulsion be a stable composition, and this is achieved at the critical pH range indicated therein. The broad pH range in Hirai et al. as cited in the Office Action simply is not enabling for the critical pH range of this invention.

“Presence of a property not possessed by the prior art is evidence of nonobviousness.” MPEP 716.02(a). Applicants present clear evidence in their specification of the unexpected

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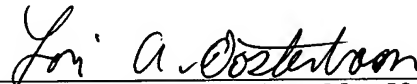
and significant results obtained in a thin film polyisoprene article made by curing the stable polyisoprene latex emulsion of the present invention. Compare FIGS. 1 and 2. As the MPEP states, "[t]he patentability of an intermediate may be established by unexpected properties of an end product" MPEP 716.02(b).

The prior art relied does not possess a stable latex emulsion, a stable latex emulsion curable without the use of a coagulant, or a thin film polyisoprene article made by curing such a stable latex emulsion.

The Office Action makes conclusory statements without full support for rejecting the claims in this application because The Office Action fails to show how each and every element of the claimed invention is found in the references relied on therein. In spite of the prolonged prosecution of this application, little has been brought to light to support a rejection of the claims. A prima facie case of unpatentability is only made when the Office Action shows that the references relied on teach or suggest all claim limitations. See MPEP § 2142.

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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CERTIFICATE OF MAILING



I hereby certify that this RESPONSE TO OFFICE ACTION (along with any documents referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date: March 12, 2004

Amendment or ROA - Regular (Rev. 8/16/2003)
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